

Space News ROUNDUP!

VOL. 37 NO. 11

Lyndon B. Johnson Space Center, Houston, Texas

June 5, 1998

In this issue



The Alpha Magnetic Spectrometer will look for the universe's missing matter.

Page 2



JSC engineers help local students roll to glory in statewide model solar car competition.

Page 3



Shuttle-Mir docking program provides essential opportunity to learn for future.

Page 4&5



Gilruth Center about open court where volleyball players can dig in their toes.

Page 6



Cafeteria manager Harry Conran goes full steam ahead with improvements.

Page 7



Radio listeners get charge out of JSC's director during Electrical Safety Fair.

Page 8

Hatch closing behind last Mir astronaut

By John Ira Petty

For the first time since March 1996, a space shuttle visiting Mir won't be leaving an astronaut aboard the Russian space station.

When *Discovery* undocks to return home, more than 26 months of continuous U.S. presence on Mir will end as Phase 1 of the International Space Station Program comes to a close. Astronauts have spent a total of almost 1,000 days on Mir.

Perhaps half of the STS-91 flight,

a 10-day mission, will be devoted to a multinational experiment called the Alpha Magnetic Spectrometer. AMS is the first of a new generation of space-based experiments that use particles instead of light to study the universe.

The experiment will help answer questions about the creation, growth and future of the universe and help probe further



The shuttle's robotic arm also will be

into questions surrounding the "Big Bang theory," searching for anti-matter and dark matter in space. In *Discovery's* cargo bay on a verification flight, the AMS is to remain on the International Space Station for several years.

Other experiments aboard *Discovery* include two Getaway Specials.

tested with its new station-related equipment. The shuttle also will release a tracer gas into Mir's damaged Spektr module to try to pinpoint a leak.

The launch was to be the first flight of the new, super-lightweight external tank, which weighs about 7,500 pounds less than the original.

STS-91 Commander Charlie Precourt will be making his fourth space flight. This is Pilot Dom Gorie's first

Please see **STS-91**, Page 8

Partners revise space station launch targets

Representatives of all nations involved in the International Space Station are officially targeting a November 1998 launch for the first station component and are revising launch target dates for the remainder of the 43-flight station assembly plan.

In meetings of the Space Station Control Board and the heads of agency May 30-31 at Kennedy Space Center, all station partners agreed to target launch dates of Nov. 20 for the Control Module, also known as the FGB and named Zarya (the Russian word for sunrise), and Dec. 3 for STS-88 with Unity, previously known as Node 1.

Changes in the construction schedule for the third station component, the Russian-provided Service Module, led the partners to reschedule the first assembly launches. The Service Module will house the first station occupants and the European Space Agency provided Data Management System.

Although the new dates move the launch of the first station component, Zarya, from June to November, the target dates agreed upon for many major station milestones during the latter portions of the five-year assembly plan are little changed. In addition, several enhancements to the station's assembly have been made, including an exterior "warehouse" for spare parts and a Brazilian-provided carrier for exterior station components that are launched aboard the shuttle.

The International Space Station partners set an April 1999 target launch date for the Russian Service Module. The first station crew—expedition Commander Bill Shepherd, Soyuz Commander Yuri Gidzenko and Flight Engineer Sergei Krikalev—will be launched aboard a Russian Soyuz spacecraft in summer 1999 to begin a five-month inaugural stay. Launch of the U.S. Laboratory module is set for October 1999. Launches of other laboratory modules, provided by Europe, Japan and Russia, will take place later in the assembly sequence. The Canadian-provided station robotic arm, or Space Station Remote Manipulator System, will be launched in December 1999. The scientific research will commence aboard the station early in the year 2000.

The expansion from a three-person crew to a six-person crew will be announced later this year. Please see **RUSSIA**, Page 8



NASA Photo 98-04117

Astronaut Bill Shepherd, right, commander of the first crew that will live aboard the International Space Station, and Cosmonaut Sergei Krikalev, left, flight engineer for the first crew, practice survival skills during training in March 1998 near Star City, Russia. The crew, which also includes Cosmonaut Yuri Gidzenko as Soyuz commander, participated in two days of Soyuz winter survival training to practice skills that could be needed in the event the Soyuz spacecraft landed in a location where the crew could not immediately be reached.

New phone book hits street

JSC's new Spring 1998 telephone directory hit the street this week, but only a limited number of copies will be distributed. All JSC civil servants will receive a printed copy and a limited number of copies will be sent to other NASA centers and contractor offices.

Everyone is encouraged to use the on-line directory on the JSC Internal Home Page at <http://www4.jsc.nasa.gov> for the latest information. The ability to make the phone book available and quickly update it "on-line" will allow the center to save a significant amount of money by reducing the number of copies it prints and distributes. Not only that, the on-

line directory is updated continuously as the Information Systems Directorate is notified of moves, additions, deletions and other changes.

Some organizational or telephone number changes may not be in the new directory because of the necessity to meet printing deadlines. To ensure corrections are made to the on-line directory and that the next printed directory captures any new information, employees should be sure to process changes through their organization's CTS Coordinator.

Employees also are encouraged to recycle their old JSC Phone Directories by placing them in their standard recycling trays.

On-line ordering available for Earth images taken by astronauts

Images taken by NASA astronauts flying high above the Earth aboard the space shuttle can now be ordered on-line.

The "Best 500" images from the NASA Space Shuttle Earth Observations Photography database of more than 250,000 images have been available for free downloading for quite some time. Now, thanks to a trial cooperative effort between JSC's Space and Life Sciences Directorate, Information Systems Directorate, Public Affairs Office and the Eastman Kodak Co., the public may purchase high-resolution photographic prints of the images over the Internet.

Kodak's Commercial & Government Systems unit activated its on-line ordering site on May 22 as part of a market trial agreement with JSC aimed at determining public interest in obtaining quality digital prints of images from NASA missions.

Anyone who would like to order a print is asked to search the Space and Life Sciences-developed Earth observations image database at <http://earth.jsc.nasa.gov/>. When the search results are returned, users will see a link labeled "Order a Photographic Print of (Photo number)." Clicking on this link will take the user to a Kodak site that will allow them to input their order.

Images range in size and price from 8-by-10 inches at \$13.95 to 20-by-24 inches at \$29.95, and include a location map, title and north locator.

Dr. Kam Lulla, chief of JSC's Earth Science Branch, is in charge of NASA's Earth observations photography collection. Ric Slater, ISD's technical monitor for imagery, is in charge of the Internet image database, and the IMPASS contractor manages the web site. PAO's Kelly Humphries is JSC's project manager for the trial agreement.

